

**AMENDMENTS TO THE CLAIMS**

**1-31 (Canceled)**

**32. (New)** A method for therapeutically or prophylactically treating a subject to activate conceptus migration, promote conceptus implantation on the uterine wall, therapeutic or prophylactic treat sterility, promote pregnancy, control interaction between conceptus and maternal system, activate immunocyte migration, and/or control immune function in the uterus,

said method comprises administering to a subject, in need thereof, a composition comprising an effective amount of at least one member selected from the group consisting of:

- (i) an IP-10 protein,
  - (ii) an IP-10 protein analogue or derivative having at least a deletion, addition, and/or substitution of one or more amino acid residues and having a biological activity essentially equal or equivalent to that of the intact IP-10 protein;
  - (iii) an IP-10 protein encoded by a nucleotide sequence comprising at least an open reading frame portion in SEQ ID NO: 1 and has a biological activity essentially equal or equivalent to that of the intact IP-10 protein;
  - (iv) an IP-10 protein encoded by a nucleotide sequence that hybridizes to SEQ ID NO: 1 under stringent conditions and has a biological activity essentially equal or equivalent to that of the intact IP-10 protein;
  - (v) an IP-10 protein comprising the amino acid sequence of SEQ ID NO: 2; and
  - (vi) an IP-10 protein comprising an amino acid sequence having at least 80% homology to SEQ ID NO: 2 and has a biological activity essentially equal or equivalent to that of the intact IP-10 protein,
- or a pharmaceutically acceptable salt thereof.

**33. (New)** The method of claim 32, wherein the IP-10 protein is obtained from a mammal selected from the group consisting of human, bovine, buffalo, equine, donkey, ovine, goat, camel, swine, deer, reindeer, yak, canine, cat, and ape.

**34. (New)** The method of claim 32, wherein said IP-10 protein of (vi) comprises an amino acid sequence having at least 95% homology to SEQ ID NO: 2 and has a biological activity essentially equal or equivalent to that of the intact IP-10 protein.

**35. (New)** The method of claim 32, wherein said subject is a human or a non-human animal.

**36. (New)** The method of claim 32, wherein said method promotes or accelerates conceptus implantation.

**37. (New)** The method of claim 32, wherein said method promotes embryo implantation in a female.

**38. (New)** The method of claim 32, wherein said method therapeutically or prophylactically treats sterility.

**39. (New)** A method for treating a subject to inhibit or suppress conceptus implantation, induce or facilitate sterility, and/or inhibit or suppress sterility, said method comprises administering to a subject, in need thereof, a composition comprising an effective amount of at least one member selected from the group consisting of:

(i) anti-IP-10 antibodies; and

(ii) an IP-10 protein analogue or derivative having at least a deletion, addition, and/or substitution of one or more amino acid residues and having a biological activity that inhibits the activity of the intact IP-10 protein;

or a pharmaceutically acceptable salt thereof.